

New Claims

1. Electromagnet for actuating a valve, the electromagnet (28) comprising an armature (58) which can be axially displaced in an armature space (57, 77) and of which the axial motion displaces a tappet (29) to the valve and a reflux channel (69, 71, 73) connected to the armature space (57, 77) being provided, via which the armature space (57, 77) is connected to a tank volume (25) for removing a pressure medium leakage flow that is flowing out of the valve into the armature space (57, 77),
characterised in that
at least one first channel portion (69) of the reflux channel (96, 71, 73) is arranged in a pole tube (50) and in that
a second channel portion (71) of the reflux channel is provided in a housing cover (53) and which discharges from the housing cover (53) on a surface provided for abutment against a valve housing (7).

2. Electromagnet according to claim 1,
characterised in that
the reflux channel (69, 71, 73) discharges in a radially expanded portion (56) of a through passage (51) connected to the armature space (57, 77).

3. Electromagnet according to claim 1,
characterised in that
the reflux channel (69, 71, 73) discharges directly into the armature space (57, 77).

4. Electromagnet according to any one of claims 1 to 3,
characterised in that

5 a rear armature space (77) constructed on the side of
the armature (58) facing away from the tappet (29) is
connected to the armature space (57) by means of at
least one armature channel (59).

5. Electromagnet according to any one of claims 1 to 4,
characterised in that

10 the tank volume connected to the armature space (57,
77) via the reflux channel (69, 71, 73) is a tank
volume (25) constructed in the valve.